

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/11822

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 F16K11/078

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F16K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 35 18 698 A (GROHE ARMATUREN FRIEDRICH) 27 November 1986 (1986-11-27) page 6, line 31 -page 10, line 1; figures 1-3	1-5,11
X	DE 41 01 955 A (GROHE KG HANS) 30 July 1992 (1992-07-30) column 3, line 44 -column 7, line 68; figure 1	1,3,4
A	DE 91 02 027 U (KNEBEL & RÖTTGER GMBH) 25 June 1992 (1992-06-25) figures 1-14	1,6-8
A	EP 0 254 957 A (STELLA RUBINETTERIE SPA) 3 February 1988 (1988-02-03) figures 1-10	1,10
	-/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

15 January 2004

Date of mailing of the international search report

04/02/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Heneghan, M

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/11822

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	FR 2 515 772 A (PIEL-ETS P) 6 May 1983 (1983-05-06) figures 1-4	1,10
A	CH 488 955 A (OEDERLIN CIE AG) 15 April 1970 (1970-04-15) figures 1-6	1
A	US 4 942 902 A (KNAPP ALFONS) 24 July 1990 (1990-07-24) figures 1-8	1

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/11822

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
DE 3518698	A	27-11-1986	DE 3518698 A1	27-11-1986
DE 4101955	A	30-07-1992	DE 4101955 A1	30-07-1992
DE 9102027	U	25-06-1992	DE 9102027 U1	25-06-1992
EP 0254957	A	03-02-1988	IT 1213318 B	20-12-1989
			AT 58424 T	15-11-1990
			CA 1276527 C	20-11-1990
			DE 3766180 D1	20-12-1990
			EP 0254957 A1	03-02-1988
			SU 1627096 A3	07-02-1991
			US 4770208 A	13-09-1988
FR 2515772	A	06-05-1983	FR 2515772 A1	06-05-1983
CH 488955	A	15-04-1970	NONE	
US 4942902	A	24-07-1990	IT 1211291 B	12-10-1989
			IT 1211292 B	12-10-1989
			IT 1211293 B	12-10-1989
			AU 651551 B2	28-07-1994
			AU 2534788 A	17-04-1989
			BR 8807196 A	17-10-1989
			DE 3890735 C2	08-08-2002
			DE 3890735 T0	07-09-1989
			DK 72689 A	23-03-1989
			FR 2636706 A1	23-03-1990
			GB 2229517 A ,B	26-09-1990
			JP 2763876 B2	11-06-1998
			JP 10082474 A	31-03-1998
			JP 2501235 T	26-04-1990
			JP 2749606 B2	13-05-1998
			WO 8902558 A1	23-03-1989